

Title (en)
METHOD FOR AUTONOMOUSLY PARKING AND UN-PARKING A MOTOR VEHICLE

Title (de)
VERFAHREN ZUM AUTONOMEN EIN- UND AUSPARKEN EINES KRAFTFAHRZEUGS

Title (fr)
PROCÉDÉ DE STATIONNEMENT ET DE SORTIE AUTONOME D'UN VÉHICULE AUTOMOBILE

Publication
EP 3284652 A1 20180221 (EN)

Application
EP 17184842 A 20170804

Priority
US 201615242166 A 20160819

Abstract (en)
A method for autonomously parking or un-parking a motor vehicle (12) includes the steps of locating the motor vehicle (12) within a parking area (30), setting a destination location (59) within the parking area (30), generating and setting a path (61) from the location of the motor vehicle (12) to the destination location (59), and autonomously driving the motor vehicle (12) along the path (61). The path (61) is generated by (a) generating a first set of nodes from the location of the motor vehicle, (b) assigning a cost to each node in the first set of nodes, (c) selecting a lowest cost node from the first set of nodes, (d) generating another set of nodes from the selected node, (e) assigning a cost to each of the newly generated nodes, (f) selecting a lowest cost node from all of the nodes, and (g) repeating steps (d) - (f) until a lowest cost node is located at the destination location.

IPC 8 full level
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Citation (search report)

- [A] WO 2008032354 A1 20080320 - PIONEER CORP [JP], et al
- [A] US 2012101654 A1 20120426 - SAMPLES MICHAEL EDWARD [US], et al
- [A] US 2006212216 A1 20060921 - KOBAYASHI NOBUHARU [JP], et al
- [A] US 2016153796 A1 20160602 - STANKOULOV PAVEL [US]
- [A] US 2016200359 A1 20160714 - BOECK MARTIN [AT], et al
- [A] US 2015185734 A1 20150702 - MINOIU-ENACHE NICOLETA [FR]
- [I] MARCOS GOMES PRADO: "Planejamento de trajetória para estacionamento de veículos autônomos", 1 April 2013 (2013-04-01), pages 1 - 84, XP055439434, Retrieved from the Internet <URL:http://www.teses.usp.br/teses/disponiveis/55/55134/tde-13052013-101339/publico/marcospradorevisada.pdf> [retrieved on 20180110]
- [I] CHRISTIAN LÖPER ET AL: "Automated Valet Parking as Part of an Integrated Travel Assistance", PROCEEDINGS OF THE 16TH INTERNATIONAL IEEE ANNUAL CONFERENCE ON INTELLIGENT TRANSPORTATION SYSTEMS (ITSC 2013), 6 October 2013 (2013-10-06), pages 2341 - 2348, XP055439565, Retrieved from the Internet <URL:http://ieeexplore.ieee.org/ielx7/6712176/6728201/06728577.pdf> [retrieved on 20180110], DOI: 10.1109/ITSC.2013.6728577
- [A] MAXIM LIKHACHEV ET AL: "Planning Long Dynamically Feasible Maneuvers for Autonomous Vehicles", THE INTERNATIONAL JOURNAL OF ROBOTICS RESEARCH, 1 August 2009 (2009-08-01), London, England, pages 933 - 945, XP055439546, Retrieved from the Internet <URL:http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.149.23&rep=rep1&type=pdf> [retrieved on 20180110], DOI: 10.1177/0278364909340445
- [A] ROTTMANN STEPHAN ET AL: "Demo: Automated valet parking and charging", 2014 IEEE VEHICULAR NETWORKING CONFERENCE (VNC), IEEE, 3 December 2014 (2014-12-03), pages 203 - 204, XP032723561, DOI: 10.1109/VNC.2014.7013348

Cited by
US2022379904A1; US12007767B2

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